

**REMARKS**

Applicants respectfully request consideration of the foregoing amendments submitted with the accompanying request for continued examination (RCE).

This is a full and timely response to the Final Office Action (Paper No. 13) mailed by the U.S. Patent and Trademark Office on May 13, 2003. Claims 1, 3-8, 10, 11 and 13-15 remain pending in the present application. Claims 1, 3-8, 10, 11 and 13-15 have been amended to more particularly point out and distinctly claim the subject matter that Applicants regard as the invention. Claims 16-25 have been added. In view of the foregoing amendments and following remarks, reconsideration and allowance of the present application and claims 1, 3-8, 10, 11, and 13-25 are respectfully requested. The subject matter in amended claims 1, 3-8, 10, 11 and 13-15, and added claims 16-25 is included in FIGs. 2-6 and described in the corresponding portion of the specification (page 8, line 3 to page 14, line 14). Consequently, no new matter is added.

**I. Claim Rejections - Claims 1, 3-8, 10, 11, and 13-15**

**A. Statement of the Rejection**

Claims 1, 3-8, 10, 11, and 13-15 presently stand rejected under 35 U.S.C. §102(e) as allegedly anticipated by Kamieniecki *et al.* (U.S. Patent No. 5,969,835 "the '835 patent.")

**B. Discussion of the Rejection - Claims 1, 3-8, 10, 11, and 13-15**

**1. Claims 1, 3-6**

Applicants respectfully traverse the rejection of claims 1 and 3-6 under 35 U.S.C. §102(e) for at least the reason that the cited reference fails to disclose, teach, or suggest each method step in the claims.

It is well established that "anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration." *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 Fed 2d 1540, 220 U.S.P.Q. 303, 313 (Fed Cir 1983). The present rejection fails to meet the burden of identifying a single prior art reference that discloses, teaches, or suggests each feature of the claimed invention.

Applicants' claimed invention is fundamentally different than the system and method apparently disclosed in the '835 patent. As the title of the '835 patent indicates,

it is directed to a test apparatus in which testing of the functionality and reliability of an IR controlled electronic device is performed. The IR testing apparatus apparently simulates human key presses on an IR remote control, and determines the reliability of an IR receiver that detects the key presses.

In contrast, Applicants' claimed systems and methods for remotely accessing and controlling a test and measurement device coupled to a device under test include a test analysis center coupled to the test and measurement device via a first network and an analysis tool kit. In further contrast with the IR testing apparatus apparently disclosed in the '835 patent, Applicants' claimed systems include a test analysis center that is configured in response to device under test identification data and test and measurement device identification data. Consequently, the IR testing apparatus apparently disclosed in the '835 patent does not anticipate Applicants' claimed invention.

Specifically, and with particular regard to the claims, Applicants' amended independent claim 1 includes at least the following steps that are not disclosed, taught, or suggested by the IR testing device of the '835 patent: ***“providing a remotely-located test analysis center configured to establish a communication session with the analysis tool kit in response to an operator request generated from the customer site;” “transmitting test and measurement device identification data via the analysis tool kit to the remotely-located test analysis center;” “transmitting device under test identification data via the analysis tool kit to the remotely-located test analysis center;” and “configuring the remotely-located test analysis center in response to the device under test identification data and the test and measurement device identification data.”***

For convenience of analysis, Applicants' independent claim 1, as amended, is repeated below in its entirety.

1. A method for remote control of a test and measurement device connected to a device under test, the method comprising the steps of:
  - providing an analysis tool kit at a customer test site, the customer test site having a test and measurement device coupled to a device under test;
  - communicatively coupling the analysis tool kit to the test and measurement device;

*providing a remotely-located test analysis center configured to establish a communication session with the analysis tool kit in response to an operator request generated from the customer site;*  
*transmitting test and measurement device identification data via the analysis tool kit to the remotely-located test analysis center;*  
*transmitting device under test identification data via the analysis tool kit to the remotely-located test analysis center; and*  
*configuring the remotely-located test analysis center in response to the device under test identification data and the test and measurement device identification data.*

(Applicants' independent claim 1 - *emphasis added*.)

The cited art of record fails to disclose, teach, or suggest at least the emphasized steps of pending claim 1 as shown above. Consequently, claim 1 is allowable.

More specifically, the '835 patent fails to disclose, teach, or suggest Applicants' claimed step of "*providing a remotely-located test analysis center configured to establish a communication session with the analysis tool kit in response to an operator request generated from the customer site.*" For at least the reason that the IR testing apparatus of the '835 patent fails to disclose teach or suggest "a remotely-located test analysis center" as well as "an analysis tool kit," the '835 patent does not anticipate Applicants' claim 1. Consequently, claim 1 is allowable.

Because the IR testing apparatus of the '835 patent fails to disclose teach or suggest "a remotely-located test analysis center" as well as "an analysis tool kit," the '835 patent does not disclose, teach, or suggest "*transmitting test and measurement device identification data via the analysis tool kit to the remotely-located test analysis center.*" Accordingly, for at least this separate and independent reason, Applicants' independent claim 1 is allowable.

Furthermore, because the IR testing apparatus of the '835 patent fails to disclose teach or suggest "a remotely-located test analysis center" as well as "an analysis tool kit," the '835 patent does not disclose, teach, or suggest "*transmitting device under test identification data via the analysis tool kit to the remotely-located test analysis center.*" Accordingly, for at least this separate and independent reason, Applicants' independent claim 1 is allowable.

Moreover, because the IR testing apparatus of the '835 patent fails to disclose teach or suggest "a remotely-located test analysis center," the '835 patent does not disclose, teach, or suggest "***configuring the remotely-located test analysis center in response to the device under test identification data and the test and measurement device identification data.***" Accordingly, for at least this separate and independent reason, Applicants' independent claim 1 is allowable.

Because independent claim 1 is allowable, dependent claims 3-6 which depend directly from claim 1 are also allowable. *See In re Fine*, 837, F.2d 1071, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988). Accordingly, Applicants respectfully request that the rejection of claims 1 and 3-6 be withdrawn.

## **2. Claims 7, 8, and 10**

Applicants respectfully traverse the rejection of claims 7, 8, and 10 under 35 U.S.C. §102(e) for at least the reason that the cited reference fails to disclose, teach, or suggest each element in the claims.

For convenience of analysis, Applicants' independent claim 7, as amended, is repeated below in its entirety.

7. A test and measurement system for remote observation and control of a test and measurement device connected to a device under test, said test and measurement system comprising:

***an analysis tool kit comprising:***

a computing device;

***an image sensor, a test and measurement device interface, and a modem*** coupled to the computing device, wherein the test and measurement device interface is further coupled to the test and measurement device;

***a first network coupled to the analysis tool kit*** via the modem; and

***a test analysis center*** coupled to the first network.

(Applicants' independent claim 7 - *emphasis added*.)

Applicants respectfully assert that the cited art of record fails to disclose, teach, or suggest at least the emphasized elements of pending system claim 7 as shown above. Consequently, claim 7 is allowable.

Specifically, the '835 patent fails to disclose, teach, or suggest Applicants' claimed "***analysis tool kit comprising: a computing device; an image sensor, a test***

*and measurement device interface, and a modem . . .*” In this regard, the ‘835 patent fails to disclose, teach, or suggest at least “an analysis tool kit comprising a test and measurement device interface and a modem.” Consequently, for at least this reason, claim 7 is allowable.

Furthermore, because the IR testing apparatus of the ‘835 patent fails to disclose teach or suggest “an analysis tool kit comprising a modem,” the ‘835 patent fails to disclose, teach, or suggest Applicants’ claimed “*a first network coupled to the analysis tool kit* via the modem.” Accordingly, for at least this separate and independent reason, Applicants’ independent claim 7 is allowable.

Moreover, because the IR testing apparatus of the ‘835 patent fails to disclose teach or suggest “a first network coupled to the analysis tool kit via a modem,” the ‘835 patent does not disclose, teach, or suggest “*a test analysis center* coupled to the first network.” Accordingly, for at least this separate and independent reason, Applicants’ independent claim 7 is allowable.

Because independent claim 7 is allowable, dependent claims 8 and 10, which depend from claim 7 are also allowable. *See In re Fine, supra.* Accordingly, Applicants respectfully request that the rejection of claims 7, 8, and 10 be withdrawn.

### **3. Claims 11 and 13-15**

Applicants respectfully traverse the rejection of claims 11 and 13-15 under 35 U.S.C. §102(e) for at least the reason that the cited reference fails to disclose, teach, or suggest each element in the claims.

For convenience of analysis, Applicants’ independent claim 11, as amended, is repeated below in its entirety.

11. A test and measurement system for remote observation and control of a test and measurement device connected to a device under test, said test and measurement system comprising:

means for coupling an analysis tool kit to a test and measurement device located at a customer site;

means for monitoring a test connection between the device under test and the test and measurement device;

*means for coupling the analysis tool kit to a first network;*

*means for coupling a computing device at a remote analysis center to the first network;*

***means for communicating an operator request from the customer site to the remote analysis center; and means for configuring the remote analysis center responsive to device under test identification data and test and measurement device identification data.***

(Applicants' independent claim 11 - *emphasis added*.)

Applicants respectfully assert that the cited art of record fails to disclose, teach, or suggest at least the emphasized elements of pending claim 11 as shown above. Consequently, claim 11 is allowable.

Specifically, the '835 patent fails to disclose, teach, or suggest Applicants' claimed "***analysis tool kit***," "***first network***," and "***remote analysis center***." Consequently, the '835 patent does not teach at least Applicants' claimed "***means for coupling the analysis tool kit to a first network***." Accordingly, for at least this reason, Applicants' independent claim 11 is allowable.

Furthermore, because the '835 patent fails to disclose, teach, or suggest Applicants' claimed "***analysis tool kit***," "***first network***," and "***remote analysis center***," the '835 patent does not teach at least Applicants' claimed "***means for coupling a computing device at a remote analysis center to the first network***." Accordingly, for at least this separate and independent reason, Applicants' independent claim 11 is allowable.

Moreover, because the '835 patent fails to disclose, teach, or suggest Applicants' claimed "***analysis tool kit***," "***first network***," and "***remote analysis center***," the '835 patent does not teach at least Applicants' claimed "***means for communicating an operator request from the customer site to the remote analysis center***." Accordingly, for at least this separate and independent reason, Applicants' independent claim 11 is allowable.

In addition, because the '835 patent fails to disclose, teach, or suggest Applicants' claimed "***analysis tool kit***," "***first network***," and "***remote analysis center***," the '835 patent does not teach at least Applicants' claimed "***means for configuring the remote analysis center responsive to device under test identification data and test and measurement device identification data***." Accordingly, for at least this separate and independent reason, Applicants' independent claim 11 is allowable.

Because independent claim 11 is allowable, dependent claims 13-15, which depend either directly or indirectly from claim 11 are also allowable. See *In re Fine*,

*supra*. Accordingly, Applicants respectfully request that the rejection of claims 11 and 13-15 be withdrawn.

**II. Claim Rejections Under 35 U.S.C. §103 - Claims 1, 3-8, 10, 11, and 13-15**

**A. Statement of the Rejections**

Claims 1, 3-8, 10, 11, and 13-15 presently stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 5,504,432 to Chandler *et al.* (hereafter “the ‘432 patent”) in view of the Examiner’s taking of Official Notice that it would have been obvious to one of ordinary skill in the art at the time of the invention to employ video cameras during remote testing of DUTs because information other than electrical signals would be provided to the user.

**B. Discussion of the Rejections**

Applicants respectfully traverse the rejection of these claims for at least the reason that the cited art reference fails to disclose, teach, or suggest each element in the claims.

In order for a claim to be properly rejected under 35 U.S.C. §103, “[t]he PTO has the burden under section 103 to establish a *prima facie* case of obviousness. To establish a *prima facie* case of obviousness, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant’s disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). In this regard, Applicants note that there must not only be a suggestion to combine the functional or operational aspects of the combined references, but that the Federal Circuit also requires the prior art to suggest both the combination of elements and the structure resulting from the combination. *Stiftung v. Renishaw PLC*, 945 F.2d 1173 (Fed. Cir. 1991).

In this regard, the cited reference fails to meet the burden of disclosing, teaching, or suggesting each feature of Applicants’ claimed invention. Consequently, the rejection fails to establish a *prima facie* case of obviousness when applied to Applicants’ amended independent claims 1, 7, and 11. Accordingly, the claim rejections under 35 U.S.C. §103 should be withdrawn.

**1. Claims 1, 3-6**

Applicants respectfully traverse the rejection of claims 1 and 3-6 under 35 U.S.C. §103(a) for at least the reason that the cited reference fails to disclose, teach, or suggest each method step in the claims.

Applicants' claimed invention is different than the system and method apparently disclosed in the '432 patent. As the title of the '432 patent indicates, it is directed to a test apparatus for detecting short, opens, and connected pins on a printed circuit board using automatic test equipment. The tester classifies nodes as belonging to one of three groups. The nodes are either connected to ground, interconnected to the other nodes of a test group, or isolated from all other test nodes. The circuit board tester has a testhead containing a plurality of channels, each configured to be coupled to a node on the printed circuit board. The testhead uses a digital signal from a digital driver to drive the node to a predetermined voltage and a digital receiver to read the node voltage. Each test channel further includes a switch to selectively couple the node to ground. Various combinations of switch positions and testing sequences enables the circuit board tester to test all node connections and to ensure that the physical embodiment of the printed circuit board accurately reflects the circuit board design.

In contrast, Applicants' claimed systems and methods for remotely accessing and controlling a test and measurement device coupled to a device under test include a test analysis center coupled to the test and measurement device via a first network and an analysis tool kit. In further contrast with the test apparatus apparently disclosed in the '432 patent, Applicants' claimed systems include a test analysis center that is configured in response to device under test identification data and test and measurement device identification data. Consequently, the test apparatus apparently disclosed in the '432 patent does not anticipate Applicants' claimed invention.

Specifically, and with particular regard to the claims, Applicants' amended independent claim 1 includes at least the following steps that are not disclosed, taught, or suggested by the test apparatus of the '432 patent: ***“providing a remotely-located test analysis center configured to establish a communication session with the analysis tool kit in response to an operator request generated from the customer site;” “transmitting test and measurement device identification data via the analysis tool kit to the remotely-located test analysis center;” “transmitting device under test***



*identification data via the analysis tool kit to the remotely-located test analysis center;*” and *“configuring the remotely-located test analysis center in response to the device under test identification data and the test and measurement device identification data.”*

The cited art of record fails to disclose, teach, or suggest at least the emphasized steps of pending claim 1 as shown above. Consequently, claim 1 is allowable.

More specifically, the ‘432 patent fails to disclose, teach, or suggest Applicants’ claimed step of *“providing a remotely-located test analysis center configured to establish a communication session with the analysis tool kit in response to an operator request generated from the customer site.”* For at least the reason that the test apparatus of the ‘432 patent fails to disclose teach or suggest “a remotely-located test analysis center” as well as “an analysis tool kit,” the ‘432 patent does not anticipate Applicants’ claim 1. Consequently, claim 1 is allowable.

Because the test apparatus of the ‘432 patent fails to disclose teach or suggest “a remotely-located test analysis center” as well as “an analysis tool kit,” the ‘432 patent does not disclose, teach, or suggest *“transmitting test and measurement device identification data via the analysis tool kit to the remotely-located test analysis center.”* Accordingly, for at least this separate and independent reason, Applicants’ independent claim 1 is allowable.

Furthermore, because the test apparatus of the ‘432 patent fails to disclose teach or suggest “a remotely-located test analysis center” as well as “an analysis tool kit,” the ‘432 patent does not disclose, teach, or suggest *“transmitting device under test identification data via the analysis tool kit to the remotely-located test analysis center.”* Accordingly, for at least this separate and independent reason, Applicants’ independent claim 1 is allowable.

Moreover, because the test apparatus of the ‘432 patent fails to disclose teach or suggest “a remotely-located test analysis center,” the ‘432 patent does not disclose, teach, or suggest *“configuring the remotely-located test analysis center in response to the device under test identification data and the test and measurement device identification data.”* Accordingly, for at least this separate and independent reason, Applicants’ independent claim 1 is allowable.

Because independent claim 1 is allowable, dependent claims 3-6 which depend directly from claim 1 are also allowable. *See In re Fine, supra.* Accordingly, Applicants respectfully request that the rejection of claims 1 and 3-6 be withdrawn.

## **2. Claims 7, 8, and 10**

Applicants respectfully traverse the rejection of claims 7, 8, and 10 under 35 U.S.C. §103(a) for at least the reason that the cited reference fails to disclose, teach, or suggest each element in the claims.

Specifically, the '432 patent fails to disclose, teach, or suggest Applicants' claimed "***analysis tool kit comprising: . . . a modem . . .***" In this regard, the '432 patent appears to disclose a testhead 105 coupled to a host computer 102 via local area network (LAN) 104. Consequently, for at least this reason, claim 7 is allowable.

Furthermore, because the test apparatus of the '432 patent fails to disclose teach or suggest "an analysis tool kit comprising a modem," the '432 patent fails to disclose, teach, or suggest Applicants' claimed "***a first network coupled to the analysis tool kit*** via the modem." Accordingly, for at least this separate and independent reason, Applicants' independent claim 7 is allowable.

Moreover, because the test apparatus of the '432 patent fails to disclose teach or suggest "a first network coupled to the analysis tool kit via a modem," the '432 patent does not disclose, teach, or suggest "***a test analysis center*** coupled to the first network." Accordingly, for at least this separate and independent reason, Applicants' independent claim 7 is allowable.

Because independent claim 7 is allowable, dependent claims 8 and 10, which depend from claim 7 are also allowable. *See In re Fine, supra.* Accordingly, Applicants respectfully request that the rejection of claims 7, 8, and 10 be withdrawn.

## **3. Claims 11 and 13-15**

Applicants respectfully traverse the rejection of claims 11 and 13-15 under 35 U.S.C. §102(e) for at least the reason that the cited reference fails to disclose, teach, or suggest each element in the claims.

Applicants respectfully assert that the cited art of record fails to disclose, teach, or suggest at least the emphasized elements of pending claim 11 as shown above. Consequently, claim 11 is allowable.

Specifically, the '432 patent fails to disclose, teach, or suggest Applicants' claimed "*analysis tool kit*," "*first network*," and "*remote analysis center*." Consequently, the '432 patent does not teach at least Applicants' claimed "*means for coupling the analysis tool kit to a first network*." Accordingly, for at least this reason, Applicants' independent claim 11 is allowable.

Furthermore, because the '432 patent fails to disclose, teach, or suggest Applicants' claimed "*analysis tool kit*," "*first network*," and "*remote analysis center*," the '432 patent does not teach at least Applicants' claimed "*means for coupling a computing device at a remote analysis center to the first network*." Accordingly, for at least this separate and independent reason, Applicants' independent claim 11 is allowable.

Moreover, because the '432 patent fails to disclose, teach, or suggest Applicants' claimed "*analysis tool kit*," "*first network*," and "*remote analysis center*," the '432 patent does not teach at least Applicants' claimed "*means for communicating an operator request from the customer site to the remote analysis center*." Accordingly, for at least this separate and independent reason, Applicants' independent claim 11 is allowable.


In addition, because the '432 patent fails to disclose, teach, or suggest Applicants' claimed "*analysis tool kit*," "*first network*," and "*remote analysis center*," the '432 patent does not teach at least Applicants' claimed "*means for configuring the remote analysis center responsive to device under test identification data and test and measurement device identification data*." Accordingly, for at least this separate and independent reason, Applicants' independent claim 11 is allowable.

Because independent claim 11 is allowable, dependent claims 13-15, which depend either directly or indirectly from claim 11 are also allowable. *See In re Fine, supra*. Accordingly, Applicants respectfully request that the rejection of claims 11 and 13-15 be withdrawn.

**CONCLUSION**

In summary, Applicants respectfully request that the rejections of claims 1, 3-8, 10, 11, and 13-15 be withdrawn. Applicants respectfully submit that presently pending claims 1, 3-8, 10, 11, and 13-15 are allowable. Applicants further respectfully submit that newly added claims 16-20 are allowable for at least the reason that they depend indirectly from allowable independent claim 7. Newly added claims 21-25 are allowable for at least the reason that they include elements and limitations not disclosed, taught, or suggested in the prior art of record. Accordingly, a Notice of Allowance is respectfully solicited. Should the Examiner believe that a teleconference might expedite prosecution of the pending application, the Examiner is requested to phone Applicants' undersigned attorney.

Respectfully submitted,  
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